

**Managing in Complexity Series**  
**“Why the Future Happens: Socionomics and the Science of Surprise”**  
**by Dr John Casti, Co-founder of the Kenos Circle and**  
**author of *Paradigms Lost: Searching for Certainty and Complexification***

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### **Socionomics—The Science of Surprise**

The world must find means to gauge the future or be forced to take everything by surprise. Yet, how can states, businesses and individuals get meaningful insights into the trends of tomorrow? How can we tell if an incumbent president would win a re-election? What can help us identify the next hit in entertainment and fashion? How can we tell when will a country be peaceful—or beset with labour strikes, demonstrations and war? Dr John Casti—an expert in the field of complexity and risk management—commenced his lecture with these questions at the Centre for Governance and Leadership.

He implored the audience to think about what value this ability to forecast will bring to companies, governments, cultural leaders, and the individuals affected by such events. On that note, he proposed that Socionomics—the rising field in complexity science—offers an avenue to help unlock some insight into the future.

Socionomics is premised on this hypothesis: *current* feelings, beliefs, and collective social moods, come together to create the conditions for *future* collective behaviour, social actions, and events. Consumer spending illustrates this principle: higher spending takes place when people feel bullish about the economy’s prospects; conversely, consumption falters as market pessimism seeps in. Having said that, Dr Casti set his caveat that Socionomics is not a crystal ball to predict *specific* events; it provides nonetheless, useful clues to the likely nature of events to come, since they tilt the landscape to favour certain outcomes.

### **Sociometers—Measures in Social Mood**

That social moods predicate social behaviour, begs the question of how we can identify the nature of the prevailing social moods. Verbal feedback (opinion polls and questionnaires), or actions (like financial market movements, birth-rates, and internet markets) can serve as indicators of social mood. Dr Casti coined them as “sociometers”.

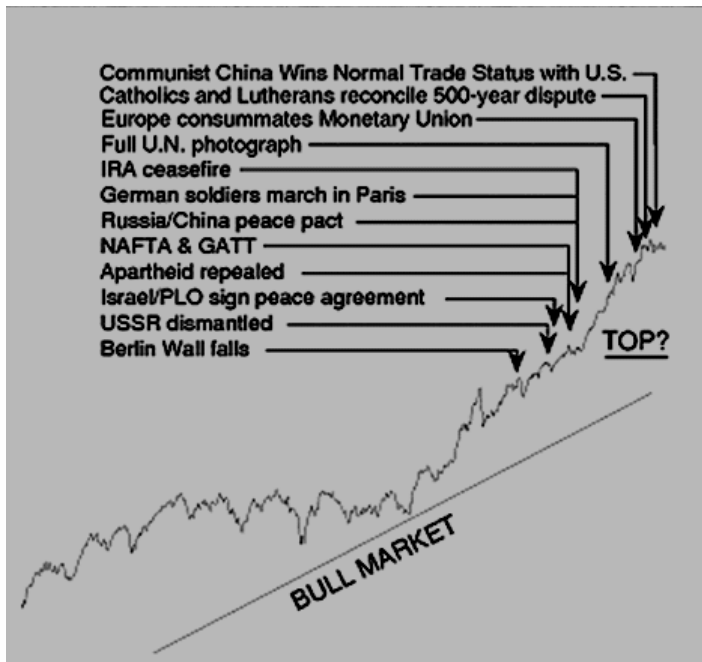
Financial markets are Dr Casti’s favourite: he reasons that they reflect what people do with what they care about (compared to a questionnaire where there are no repercussions for the respondent); there is a wealth of clean and accessible financial data, and most importantly, the track record suggested that this sociometer works.

Financial markets function essentially as large groups of people making multiple bets at different times on the future. This mass sentiment is conveniently aggregated, and represented in an overall price movement of the stock. By juxtaposing world events with the Dow Jones Index, Dr Casti illustrated how the bull and bear markets have precipitated monumental events, from the fall of the Berlin Wall to World War II (Figure 1).

Fig 1: Key Events plotted against the DJIA



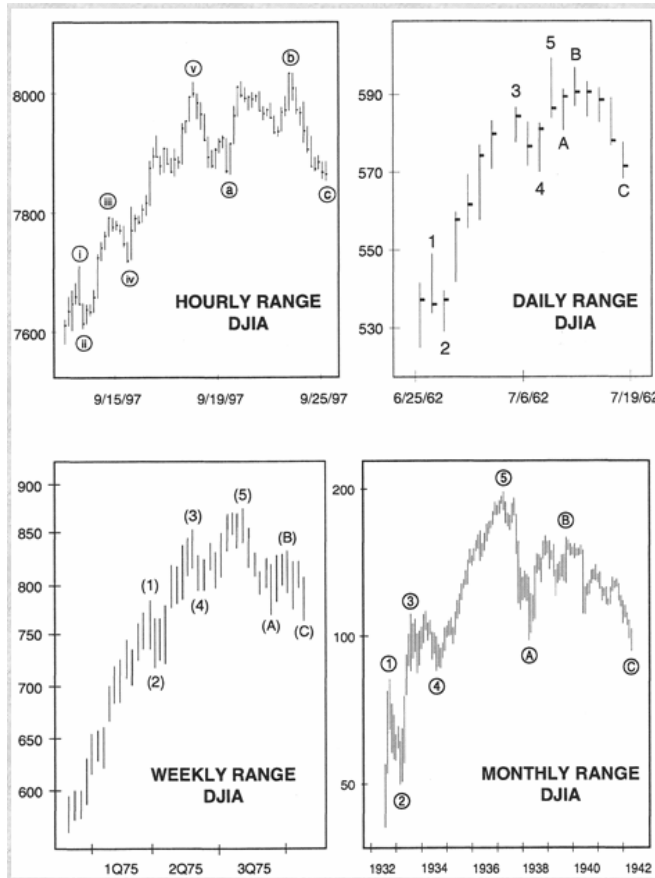
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## The Science of Social Moods

Figure 2: DJIA on different time scales



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sell off following the panic of a terrorist bombing; after ten minutes, markets always bounce back as sanity restores. Social behaviour is driven by *internal dynamics*.

The example of birds in flight was used to illustrate this principle of internal dynamics. How do migratory birds fly in formation, with almost telepathic coordination? How could they tell which direction to travel? How did they know when to shift? Dr Casti explained that primitive rules drive the seemingly complex dexterity. Each bird needs only to fly in the same average direction and velocity as the bird next to it, and keep a certain distance from each another. Although birds can discern directions from the magnetic field, slow motion video shows that the shifts in flight path begin with one bird, with the rest following suit in a domino fashion. In parallel terms, Dr Casti remarked that some individuals have greater impact on the formation of social mood than others.

This dynamic of social attitudes then translates to investment trends, fashion, political sentiment, entertainment preferences, and other immediately expressible outlets for the prevailing social mood. Dr Casti peppered the lecture with interesting illustrations of this

Digging deeper into the data, Dr Casti's research revealed that social moods follow set patterns, which remain regular, even across different time scales. The Dow Jones Industrial Average exhibited an uncannily recurring pattern even when broken down by hour, day, week, or month. Dr Casti concludes that social moods do not fluctuate randomly; they follow an internal logic and the result is a pattern that is repeated over different time scales.

This finding is significant. It makes socionomics amenable to theory and, if social moods follow a fixed pattern, it means that they are predictable—the future need not surprise.

Dr Casti hypothesised that social moods follow set patterns because they are driven by impulsive forces, derived from herding behaviour. This is akin to the immediate stock

principle at work: shorter skirts were more popular during the bull market, while longer hemlines became in vogue when markets turned bearish; developments of major towers and skyscrapers, like those in Malaysia, Taiwan and Dubai, coincided with upswings in the stock market (when everyone was confident in the economy); this was followed almost immediately in each instance, with a spiralling decline (as the social mood begins to disassemble and dip).

### **The End of Globalisation**

Dr Casti ended his lecture by applying the principles of Socionomics to globalisation. Globalisation was, by his account, a collective human social activity, which was fundamentally a “bull market” phenomenon linked to a generally positive global social mood. He illustrated the rise of globalisation beginning in 1974, as movement supported by an upward trend in the Dow Jones Industrial Index. Pro-globalisation events like the formation of the G8, the signing of the NAFTA agreement and the entry of China into the WTO took place during peaks in this golden period of globalisation.

Dr Casti felt that this positive social mood is nearing its end. The rise in the Dow Jones from 1974 has tapered since 2000. With that, a soaring number of anti-globalisation references have emerged in the media, amidst a generally bearish period. The cracks are showing: from the letdown of the Doha Round to the failure to ratify the GATT Agreement. Contrary to a flat (globalised) world projected by Thomas Friedman, Dr Casti contended that the social mood in the coming decades was about to take a dive. Governments and businesses should start preparing—the positive mood will wane and ultimately vanish, turn negative, and spell the decline for globalisation.

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